Economic Commission for Europe
Inland Transport Committee
World Forum for Harmonization of Vehicle Regulations
Working Party on Lighting and Light-Signalling
Sixty-ninth session
Geneva, 8-11 April 2013
Item 5(h) of the provisional agenda
 Collective amendments – Regulations Nos. 98, 112 and 123

Proposal for Supplements to Regulations No. 98 (Gas Discharge Headlamps), No. 112 (Headlamps emitting an asymmetrical passing beam) and No. 123 (AFS Headlamps)

Submitted by the expert from the International Automotive Lighting and Light Signalling Expert Group (GTB)

The text reproduced below was prepared by the expert from the International Automotive Lighting and Light Signalling Expert Group (GTB) to amend the provisions concerning the heat test requirements for conformity of production. The modifications to the existing text of the Regulation are shown in "track changes" mode.

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In accordance with the programme of work of the Inland Transport Committee for 2010–2014 (ECE/TRANS/208, para. 106, ECE/TRANS/2010/8, programme activity 02.4), the World Forum will develop, harmonize and update Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.
I. **Proposal**

A. **Proposal for Supplement 5 to the 01 series of amendments to Regulation No. 98**

   *Annex 9, paragraph 4.*, amend to read:

   "4. Change of the vertical position of the cut-off line

   With respect to the verification of the change in vertical positions of the cut-off line under the influence of heat, the following procedure shall be applied:

   One of the headlamps of sample A after sampling procedure in Figure 1 of this annex shall be tested according to the procedure described in paragraph 2.1. of Annex 4 after being subjected three consecutive times to the cycle described in paragraph 2.2.2. of Annex 4.

   The headlamp shall be considered as acceptable if \( \Delta r \) does not exceed 1.5 mrad \textbf{upwards and does not exceed 2.5 mrad downwards.}

   If this value exceeds 1.5 mrad but is not more than 2.0 mrad \textbf{upwards or exceeds 2.5 mrad downwards}, the second headlamp of sample A shall be subjected to the test after which the mean of the absolute values recorded in both samples shall not exceed 1.5 mrad \textbf{upwards and shall not exceed 2.5 mrad downwards.}

   However, if this value of 1.5 mrad \textbf{upwards and 2.5 mrad downwards} on sample A is not complied with, the two headlamps of sample B shall be subjected to the same procedure and the value of \( \Delta r \) for each of them shall not exceed 1.5 mrad \textbf{upwards and shall not exceed 2.5 mrad downwards.}"

B. **Proposal for Supplement 5 to the 01 series of amendments to Regulation No. 112**

   *Annex 7, paragraph 4.*, amend to read:

   "4. Change of the vertical position of the cut-off line

   With respect to the verification of the change in vertical positions of the cut-off line under the influence of heat, the following procedure shall be applied:

   One of the headlamps of sample A after sampling procedure in Figure 1 of this annex shall be tested according to the procedure described in paragraph 2.1. of Annex 4 after being subjected three consecutive times to the cycle described in paragraph 2.2.2. of Annex 4.

   The headlamp shall be considered as acceptable if \( \Delta r \) does not exceed 1.5 mrad \textbf{upwards and does not exceed 2.5 mrad downwards.}

   If this value exceeds 1.5 mrad but is not more than 2.0 mrad \textbf{upwards or exceeds 2.5 mrad downwards}, the second headlamp of sample A shall be subjected to the test after which the mean of the absolute values recorded in both samples shall not exceed 1.5 mrad \textbf{upwards and shall not exceed 2.5 mrad downwards.}
However, if this value of 1.5 mrad \textbf{upwards and 2.5 mrad downwards} on sample A is not complied with, the two headlamps of sample B shall be subjected to the same procedure and the value of $\Delta r$ for each of them shall not exceed 1.5 mrad \textbf{upwards and not exceed 2.5 mrad downwards}.

\section*{C. Proposal for Supplement 5 to the 01 series of amendments to Regulation No. 123}

\textit{Annex 7 paragraph 4., amend to read:}

"4. Change of the vertical position of the cut-off line for passing beam

With respect to the verification of the change in vertical position of the cut-off line for passing beam under the influence of heat, the following procedure shall be applied:

One of the systems of sample A after sampling procedure in Figure 1 of this annex shall be tested according to the procedure described in paragraph 2.1. of Annex 4 after being subjected three consecutive times to the cycle described in paragraph 2.2.2. of Annex 4.

The system shall be considered as acceptable if $\Delta r$ does not exceed 1.5 mrad. \textbf{upwards and does not exceed 2.5 mrad downwards}.

If this value exceeds 1.5 mrad but is not more than 2.0 mrad \textbf{upwards or exceeds 2.5 mrad but is not more than 3.0 mrad downwards}, the second system of sample A shall be subjected to the test after which the mean of the absolute values recorded on both samples shall not exceed 1.5 mrad \textbf{upwards and shall not exceed 2.5 mrad downwards}.

However, if this value of 1.5 mrad \textbf{upwards and 2.5 mrad downwards} on sample A is not complied with, the two systems of sample B shall be subjected to the same procedure and the value of $\Delta r$ for each of them shall not exceed 1.5 mrad \textbf{upwards and shall not exceed 2.5 mrad downwards}.

\section*{II. Justification}

1. The requirements relating to the change in the vertical position of the passing beam cutoff following the heat test were amended. Subsequently it has been found that this amendment should also have been introduced into the conformity of production requirements. This proposal is intended to correct this oversight.